

Exhibit A**VERSION WITH MARKINGS TO SHOW CHANGES MADE****In the Claims:**

Cancel claims 16-22.

23. (Amended) A method of forming a metallurgical structure, comprising:
forming a first layer of copper on a substrate;
forming a passivation structure on said first layer of copper, with a via exposing a portion
of said first layer of copper;
forming a barrier layer on said [first layer of copper] passivation structure;
forming a second layer of copper [formed] on said barrier layer; and
forming a conductive structure that includes [a given species, at least some of said given
species] tin diffusing from said conductive structure, said second layer of copper having a
thickness sufficient to [at least partially] substantially consume said [species] tin diffusing
from said conductive structure, and to adhere to said conductive structure.

Cancel claim 25.

27. (Amended) The method of claim 24, wherein said barrier layer is selected from the group consisting of Ti, TiN, Ta, [TaN] TaN, and combinations thereof.

Please add the following new claims 29-32:

29. A method of forming a metallurgical structure, comprising the steps of:
forming an integrated circuit substrate having a final copper interconnect layer on an upper
surface thereof;
forming a passivation structure on the upper surface, forming a via to expose a portion of
the copper interconnect layer;
filling said via with a first barrier layer on said exposed portion of the copper interconnect
layer, a second copper layer, a second barrier layer, and a third copper layer, such that said
third copper layer is co-planar with said passivation structure; and
forming a tin-containing solder ball on said third copper layer, said second and third
copper layers having a combined thickness sufficient to prevent tin from said solder ball
from penetrating into said copper interconnect layer.

30. The method of claim 29, wherein said barrier layer is selected from the group consisting of Ti, TiN, Ta, TaN, and combinations thereof.

31. The method of claim 29, wherein said tin-containing solder ball comprises a combination of lead and tin wherein tin is a majority component.

32. The method of 31, wherein said solder ball is approximately 63% tin and 37% lead.

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